

CLAIMS:

1. A method of generating a high level design of a distributed system test bed comprising the steps of:
 - 5 defining a meta-model of the test bed;
defining at least two architecture modelling elements within the meta-model to form an architecture model associated with the meta-model;
defining at least one relationship between a pair of architecture modelling elements;
 - 10 defining properties associated with at least one of the architecture modelling elements; and
storing the high level design in computer memory.
2. A method as claimed in claim 1 wherein at least one architecture modelling
15 element comprises an architecture host.
3. A method as claimed in claim 1 wherein at least one architecture modelling element comprises an architecture operation host.
- 20 4. A method as claimed in claim 1 wherein at least one architecture modelling element comprises an architecture attribute host.
5. A method of generating a performance test bed comprising the steps of:
 - 25 defining a high level design of the test bed;
generating an XML-encoded architecture design from the high level design; and
applying a set of XSLT transformation scripts to the XML-encoded architecture design to generate test bed code.
6. A method as claimed in claim 5 further comprising the steps of:
 - 30 applying the set of XSLT transformation scripts to generate program source code and compilation scripts; and

compiling the program source code using the compilation scripts to generate the test bed code.

7. A method of defining a meta-model of a distributed system test bed comprising
5 the steps of:

defining at least two modelling elements within the meta-model;
defining at least one relationship between a pair of the modelling elements; and
storing the meta-model in computer memory.

10 8. A method as claimed in claim 7 wherein at least one modelling element
comprises an architecture meta-model host.

9. A method as claimed in claim 7 wherein at least one modelling element
comprises an architecture meta-model operation host.

15 10. A method as claimed in claim 7 wherein at least one modelling element
comprises an architecture meta-model attribute host.

11. A method of evaluating a performance test bed comprising the steps of:
20 defining a high level design of the test bed;
generating an XML-encoded architecture design from the high level design;
applying a set of XSLT transformation scripts to the XML-encoded architecture
design to generate test bed code;
deploying the test bed code;
25 signalling test commands;
collecting test results; and
analyzing the test results to evaluate the performance test bed.

12. In a computer system having a graphical user interface including a display and a
30 selection device, a method of generating a performance test bed, the method comprising
the steps of:

displaying a display panel to a user;

receiving a user selection of two or more modelling elements within a meta-model;

displaying the modelling elements within the display panel;

receiving a user selection for at least one relationship between a pair of the
5 modelling elements;

displaying a representation of the at least one relationship between the pair of modelling elements within the display panel;

receiving a user selection of two or more architecture modelling elements associated with the modelling elements;

10 displaying the architecture modelling elements within the display panel;

receiving a user selection for at least one relationship between a pair of the architecture modelling elements;

displaying a representation of the at least one relationship between the pair of the architecture modelling elements; and

15 applying a set of transformation scripts to the architecture modelling elements to generate test bed code.

13. A method as claimed in claim 12 further comprising the steps of:

applying the set of transformation scripts to generate program source code and
20 compilation scripts; and

compiling the program source code using the compilation scripts to generate the test bed code.

14. In a computer system having a graphical user interface including a display and a
25 selection device, a method of generating a high level design of a distributed system test bed, the method comprising the steps of:

defining a meta-model of the test bed;

defining at least two architecture modelling elements within the architecture model to form an architecture model associated with the meta-model;

30 defining at least one relationship between a pair of architecture modelling elements;

defining properties associated with at least one of the architecture modelling elements; and

storing the high level design in computer memory.

- 5 15. In a computer system having a graphical user interface including a display and a selection device, a method of defining a meta-model of a distributed system test bed, the method comprising the steps of:

defining at least two modelling elements within the meta-model;

defining at least one relationship between a pair of the modelling elements; and

- 10 storing the meta-model in computer memory.

16. A method of adding performance test bed generation capability to a software design tool comprising the steps of:

providing means for defining a high level design of the test bed;

- 15 providing means for generating an XML-encoded architecture design from the high level design; and

providing means for applying a set of XSLT transformation scripts to the XML-encoded architecture design to generate test bed code.

- 20 17. A method of adding high level design generation capability of a distributed system test bed to a software design tool comprising the steps of:

providing means for defining a meta-model of the test bed;

providing means for defining at least two architecture modelling elements within the architecture model to form an architecture model associated with the meta-model;

- 25 providing means for defining at least one relationship between a pair of architecture modelling elements;

providing means for defining properties associated with at least one of the architecture modelling elements; and

providing means for storing the high level design in computer memory.

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18. A method of adding performance test bed evaluation capability to a software design tool comprising the steps of:

providing means for defining a high level design of the test bed;
providing means for generating an XML-encoded architecture design from the
high level design;
providing means for applying a set of XSLT transformation scripts to the XML-
5 encoded architecture design to generate test bed code;
providing means for deploying the test bed code;
providing means for signalling test commands;
providing means for collecting test results; and
providing means for analysing the test results to evaluate the performance test
10 bed.